2017
DRINKING WATER QUALITY REPORT

City of Wichita Falls

CCR WELCOME

It is my pleasure to present this year's Drinking Water Quality Report. The City of Wichita Falls is required to comply with strict Federal and State regulations for drinking water. One of the requirements is to provide this annual water quality report to our customers. I am pleased to report that our drinking water meets or exceeds all Federal and State drinking water standards.

Safe and plentiful drinking water is an essential resource for every community. The City of Wichita Falls is committed to providing its citizens with a reliable supply of quality drinking water now and in the future. We utilize the latest technology to treat your drinking water and this water is tested continuously to ensure high quality. As a water consumer in Wichita Falls, you enjoy "superior" water every time you turn on the tap. "Superior" is the State of Texas' highest water quality designation, given to Wichita Falls for excellence in meeting water quality criteria.

The good news contained in this report is a tribute to our trained and certified utility system employees that work hard each and every day. Inside, you will find the laboratory test results for our water, as well as other useful information. We value your continued confidence in us to provide you with the very best drinking water.

Sincerely,
Darron J. Leiker, City Manager

AT RISK POPULATIONS

You may be more vulnerable than the general population to certain microbial contaminants, such as Cryptosporidium, in drinking water. Infants, some elderly, or immune-compromised persons such as those undergoing chemotherapy for cancer; those who have undergone organ transplants; those who are undergoing treatment with steroids; and people with HIV/AIDS or other immune system disorders can be particularly at risk from infections. You should seek advice about drinking water from your physician or health care provider. Additional guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the Safe Drinking Water Hotline at (800) 426-4791.

All Drinking Water May Contain CONTAMINANTS

When drinking water meets federal standards, there may not be any health based benefits to purchasing bottled water or point of use devices. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Additional information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

WICHITA FALLS WATER LOSS

In the water loss audit submitted to the Texas Water Development Board for the time period of January – December 2016, our system lost an estimated 13.28%. Wichita Falls continues to meet the goal of 15% or less estimated water loss. If you have any questions about the water loss audit, please call (940) 691-1153.

SUPERIOR QUALITY

Essential to a progressive community is a reliable and safe supply of drinking water. The City of Wichita Falls is committed to providing its citizens with that reliable supply of superior quality drinking water now and in the future. We are pleased to announce, once again, that your drinking water falls safely within all Federal and State drinking water health standards.

The Texas Commission on Environmental Quality (TCEQ) has inspected the City of Wichita Falls Water System and determined it is compliant with guidelines set forth by the TCEQ and the US Environmental Protection Agency. The City of Wichita Falls currently maintains a "SUPERIOR WATER SYSTEM" classification from the TCEQ, its highest classification. Ratings are based on continued compliance with Federal and State regulations governing drinking water and annual sanitary surveys conducted by a TCEQ Registered Sanitarian.

CURRENT WATER PROJECTS:
Plant Upgrades









Construction began on the indirect potable reuse (IPR) project in the fall of 2016. The pipeline that will carry the treated wastewater effluent from the River Road Wastewater treatment plant to Lake Arrowhead is nearly complete. Construction on plant upgrades at the River Road Wastewater treatment plant are in the final phases, with construction expected to be complete in the fall of 2017. Plant upgrades at the wastewater plant include new supervisory control and data acquisition (SCADA) software, new treatment for nutrient removal, cloth filtration for final polishing and a pump station that has the ability to pump 16 million gallons of treated wastewater effluent per day. Of course, this project is all a part of bolstering the water supply for the City of Wichita Falls and surrounding communities.

HEY KIDS!

In the puzzle below, there is a list of things you can see, do and find in fresh water! How many can you find?

S	W	I	M	M	I	N	G	Z	F	I	S	H	I	N	G	M	D
A	P	F	S	T	E	R	G	E	L	S	N	M	C	O	X	R	I
I	C	L	I	L	Y	P	A	D	O	T	A	X	A	P	A	A	V
L	R	X	A	S	Z	A	U	V	A	U	K	Z	N	G	Y	N	I
I	A	D	D	S	H	X	L	Z	T	M	E	R	O	E	S	O	N
N	W	U	E	N	H	W	Y	P	I	P	S	N	E	L	E	I	G
G	D	M	L	O	B	A	L	R	N	S	F	X	P	I	L	T	Z
Z	A	O	S	R	N	S	X	R	G	L	P	S	Q	D	O	C	Q
E	D	L	P	K	Q	H	C	E	I	T	E	M	G	O	P	E	E
H	S	A	I	E	Z	J	L	E	Z	L	A	A	N	C	D	L	A
T	X	L	Z	L	Q	T	S	X	B	Y	R	L	I	O	A	F	G
A	L	S	G	O	R	F	R	B	K	K	L	C	I	R	T	E	L
B	N	M	O	U	X	D	U	C	K	S	S	S	K	C	O	R	A
G	N	I	T	A	O	B	G	N	I	L	I	A	S	A	R	A	P

SWIMMING
FISHING
DIVING
PARASAILING
BOATING
SAILING
FLOATING
FISH
ALGAE
BATHE
SPLASH
SNORKEL
FROGS
SKIING
BUBBLES
SNAKES
TURTLE
DUCKS
DRAGONFLIES
CROCODILE
EGRETS
LILYPAD
CRAWDADS
PLAY
SLALOM
REFLECTION
ROCKS
MUD
CANOE
TADPOLES
CLAMS
FISH
WASH
PEARLS
STUMPS
ZIP SLED

Want to Learn More Cool Facts About Water?

Ask your parents to help you check out the EPA web site. It has lots of fun activities for kids and links to other sites about water. Go to: www.epa.gov/safewater/kids/index.html

(Answers on Page 7)

SOURCES

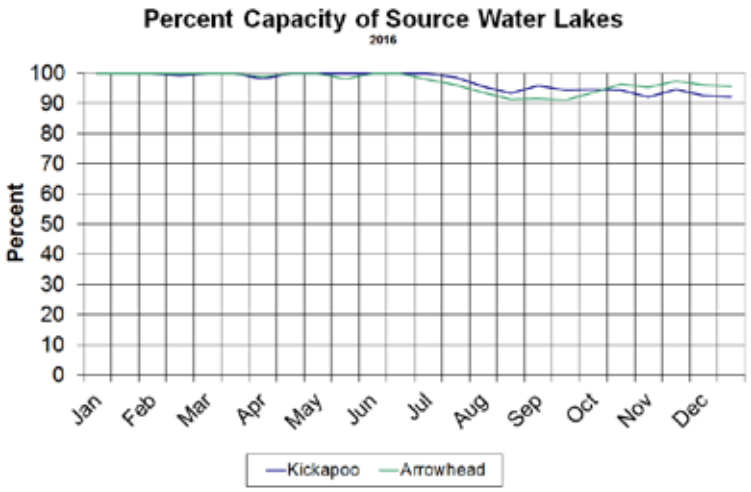
The City of Wichita Falls has previously only utilized two of its surface water reservoirs; Lake Arrowhead and Lake Kickapoo. While these two lakes have provided the citizens of Wichita Falls with a reliable source of drinking water for the last 60 years, the addition of Lake Kemp became possible in 2008 with new, advanced treatment technologies. In late 2017, the addition of the indirect potable reuse project will further bolster the City's supply for years to come.

Source Water Susceptibility Assessments

A Source Water Susceptibility Assessment for lakes Arrowhead, Kickapoo & Kemp is currently being updated by the Texas Commission on Environmental Quality. This information describes the susceptibility and types of constituents that may come into contact with our drinking water source based on human activities and natural conditions. The information contained in the assessment allows the City of Wichita Falls to focus its source water protection strategies. Some of this source water assessment information will be available later t'his year on Texas Drinking Water Watch at http://dww2.tceq.texas.gov/DWW/. For more information on source water assessments and protection efforts at our system, please contact the City of Wichita Falls Public Works Department at 761-7477.

Lake Levels

"What are the lake levels?" is one of the most frequently asked questions about the City's source waters. Below is a graph of both Lake Kickapoo & Arrowhead levels through the calendar year of 2016. If you would like to know the current lake levels at any time during the year, the City posts the current lake levels on its web site at www.wichitafallstx.gov/index.aspx?nid=986.



NOTE: This graphic only includes data for calendar year 2016, and does not include the most recent increases from rainfall.

Lake Kickapoo

Lake Kickapoo is the first lake in the Little Wichita River watershed and has a drainage area of 275 square miles. Kickapoo was constructed in 1945, 18 miles southwest of Wichita Falls in Archer County. At its maximum capacity, Lake Kickapoo contains 106,000 acre feet (35 billion gallons) of water, which makes it the 56th largest fresh water reservoir (out of 119) in the State of Texas. It was named for the Kickapoo Indians and for Kickapoo Creek, which empties into the reservoir.

Lake Arrowhead

Lake Arrowhead is the last lake in the Little Wichita River watershed and has a drainage area of 832 square miles. Construction on Lake Arrowhead began in 1965, 15 miles southeast of Wichita Falls, primarily in Clay County. At its maximum capacity, Lake Arrowhead contains 228,000 acre feet (74 billion gallons) of water, which makes it the 36th largest fresh water reservoir (out of 119) in the State of Texas.

Lake Kemp

Lake Kemp is the largest lake in the Big Wichita River watershed and has a drainage area of 2,086 square miles. Construction of Lake Kemp was completed in 1924, 37 miles west of Wichita Falls. At its maximum capacity, Lake Kemp contains 245,308 acre feet (80 billion gallons) of water, which makes it the 35th largest fresh water reservoir (out of 119) in the State of Texas. It was named for Joseph A. Kemp, who sought its construction to alleviate flooding issues within Wichita Falls.

Cryptosporidium

Cryptosporidium is a microscopic parasite that can be found in the digestive tracts of animals. It is shed in the feces and when ingested by humans may result in diarrhea, cramps, fever, and other gastrointestinal symptoms. People with healthy immune systems usually recover within a couple of weeks. However, individuals with weakened immune systems may be unable to clear the parasite from their intestines and suffer a chronic and debilitating illness known as cryptosporidiosis. (NOTE: The table below is providing you data on monitoring the City of Wichita Falls has undertaken to keep track of certain protozoans in its source waters. The City has tested its source water and drinking water for these parasites since 1994.

The EPA Source Water Protection Web site can be found at: water.epa.gov/infrastructure/drinkingwater/sourcewater/protection/index.cfm.

Source Water Monitoring

	WICHITA FALLS WATER RESULTS		EPA REGULATIONS		
Constituent	Reportable Vavlue	Range of Detection	Maximum Contaminant Level	Maxiumum Contaminant Level Goal	Analysis Year
Giardia; cysts Not naturally present in the environment	0	0 - 0	Not Regulated	0	2016
Cryptosporidium; oocysts Not naturally present in the environment	0.293	0 - 0.293	Not Regulated	0	2016

2016 Water Quality Analysis

The following tables contain all of the chemical and microbiological constituents which have been found in your drinking water for the calendar year 2016. The U.S. Environmental Protection Agency requires water systems to test up to 97 regulated constituents annually. Only nineteen (19) regulated constituents were detected in your water during 2016 and prior.

Units of Measure

- Nephelometric Turbidity Unit (NTU): A measure of water's clarity. Turbidity in excess of 5 NTU is just noticeable to the average person.
- Parts per Million (ppm): A measure of the concentration of a substance roughly equivalent to one packet of sugar in 250 gallons of iced tea.
- Parts per Billion (ppb): A measure of the concentration of a substance roughly equivalent to one packet of sugar in an Olympic-size swimming pool.
- PicoCuries per Liter (pCi/L): A measure of the radioactivity of the water.

Definitions

- Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
- Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
- Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contamination.
- Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.
- Action Level: The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

Regulated Compounds

These compounds either occur naturally within the watersheds or are products of human activities. Turbidity is a measure of the "cloudiness" of the water due to suspended material. The City of Wichita Falls monitors it because it is a good indicator of the effectiveness of our filtration systems. For the year 2016, 99% of the >4300 turbidity samples that were taken for regulatory compliance fell below the Treatment Technique of 0.3 NTU. Also, you will notice that some of our data, though representative, are more than one year old. The State of Texas allows the City of Wichita Falls to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently.

	Wichita Falls Water Results		EPA Regulations		
Constituent	Reportable Value	Range of Detection	Maximum Contaminant Level	Maximum Contaminant Level Goal	Analysis Year
Barium; ppm Natural Geology; Drilling Waste	0.025	0.017 - 0.025	2	2	2016
Chromium; ppb Natural Geology; Steel & Pulp Mills	0.63	0.4 - 0.63	100	100	2016
Cyanide; ppb Discharge from plastic and fertilizer and steel/metal factories	7.22	0 - 7.22	200	200	2016
Fluoride; ppm Water Additive; Natural Geology	0.71	0.59 - 0.71	4	4	2016
Nitrate; ppm Fertilizer Runoff; Septic Tanks; Animal Waste	0.28	0.17 - 0.28	10	10	2016
Nitrite; ppm Fertilizer Runoff; Septic Tanks; Animal Waste	0.07	<0.0008 - 0.065	1	1	2015
Selenium; ppb Natural Geology; Petroleum Refineries	1.2	0 - 1.2	50	50	2016
Total Organic Carbon; ppm Naturally Present in the Environment	5.8	0.2 - 5.8	TT	N/A	2016
Turbidity; NTU Soil Runoff	0.44	0.01 - 0.44	TT = 0.3	N/A	2016
Combined Radium 226/228; pCi/L Decay of Natural & Man-Made Deposits	1	1 - 1	5	0	2011
Combined Uranium; ppb Decay of Natural & Man-Made Deposits	1.3	0 - 1.3	30	0	2015
Gross Beta Emitters; pCi/L Decay of Natural & Man-Made Deposits	9.2	5.6 - 9.2	50	0	2015

Regulated Disinfectants

The City of Wichita Falls utilizes Chloramines (Total Chlorine) and Chlorine Dioxide to inactivate disease causing viruses and bacteria in your drinking water. Disinfectants are monitored to ensure that they are adequately applied to the drinking water.

	Wichita Falls Water Results		EPA Regulations		
Constituent	Reportable Value	Range of Detection	MRDL	MRDLG	Analysis Year
Chlorine Dioxide; ppm Disinfectant	0.75	<0.01 - 0.75	0.8	0	2016
Chlorine (Total); ppm Disinfectant (MRDL for running annual average)	3.64	2.99 - 3.64	4	<4.0	2016

Regulated within the Distribution System

There were 3 regulated disinfection by-products that were detected in your drinking water in 2016. Disinfectants are very active compounds that not only inactivate disease causing organisms, but also react with other naturally occurring compounds in the source waters to produce new compounds referred to as disinfection by-products , or DBPs. The City of Wichita Falls takes great care in keeping the concentrations of these by-products below their regulated limits.

	Wichita Falls Water Results		EPA Regulations		
Constituent	Reportable Value	Range of Detection	Maximum Contaminant Level	Maximum Contaminant Level Goal	Analysis Year
Total Trihalomethane; ppb By-Product of Chlorination	34	10 - 54.7	80	0	2016
Haloacetic Acid 5; ppb By-Product of Chlorination	27	11.8 - 39.6	60	0	2016
Chlorite; ppm By-Product of Chlorine Dioxide	0.51	<0.10 - 0.51	1	0	2016

Lead and Copper

Lead and Copper are regulated at the consumers tap under the Lead and Copper Rule of 1991. This monitoring is conducted every 3 years, and the City has completed 9 cycles of monitoring. The City of Wichita Falls has an effective program of corrosion control to keep these two metals from being leached out of your household plumbing.

	Wichita Falls Water Results		EPA Regulations		
Constituent	Reportable Value	90th Percentile	Maximum Contaminant Level	Maximum Contaminant Level Goal	Analysis Year
Lead; ppb Corrosion of Household Plumbing	3.1	3.1	15	0	2015
Copper; ppm Corrosion of Household Plumbing	0.054	0.054	1.3	1.3	2015

If present, elevated levels of lead can cause serious health problems, epecially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. This water supply is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

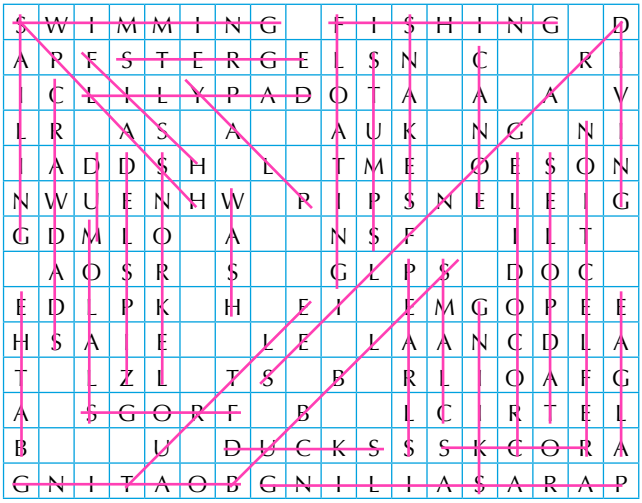
Regulated Microbiologicals

Coliform bacteria are naturally present in the environment.

	Total Coliform Bacteria		*E. coli* Bacteria		
Constituent	MCL	Highest No. of Positive	MCL	Highest No. of Positive	Analysis Year
Coliform Bacteria	5	0	1	0	2016

LAKE ARROWHEAD PIER

Puzzle Answers



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